DOCUMENT RESUME

ED 327 175 IR 014 801

AUTHOR Hornbeck, David W.
TITLE Technology and Students at Risk of School Failure.
INSTITUTION North Central Regional Educational Lab., Elmhurst, IL.
PUB DATE 90
NOTE 22p.; Paper commissioned for the Chief State School Officers' State Technology Conference (Minneapolis, MN, April 29-May 2, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; Basic Skills; *Computer Assisted Instruction; Databases; *Educationally Disadvantaged; *Educational Technology; Elementary Secondary Education; *High Risk Students; Learner Controlled Instruction; Microcomputers; Thinking Skills

ABSTRACT

There are a multitude of academic and non-academic, economic, physical, and demographic conditions that place children in the high risk of failure category in elementary and secondary schools. Assistance for these children may come through computer-assisted instruction (CAI), not only because software is available that addresses student needs, but also because of the ability of the computer to empower students to take control of their own learning. Such experiences of control are integral to the academic success of at-risk students, many of whom feel a lack of control due to environmental, physical, mental, or language disabilities. While research has shown that CAI can help at-risk students learn basic skills such as reading, writing, and mathematics, studies have also revealed that CAI helps students think critically, solve problems, and draw inferences. Technologies such as instructional video, videodisks, and distance education systems can be used to enhance motivation, interaction, and learning in at-risk students, while student databases can be used to produce, manage, and assist in the analysis of student performance, in planning instructional programs, and in organizing and tracking learning objectives for individual students. (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED327175

Technology and Students At Risk of School Failure

David W. Hornbeck
Partner, Hogan and Hartson
Washington, D.C.

Paper commissioned for the Chief State School Officers' 1990 State Technology Conference, Minneapolis, MN, April 29-May 2, 1990.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Beverly J. Walker

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

IR014801

Distributed by....

NCREL
NORTH CENTRAL REGIONAL EDUCATIONAL LABORATORY
295 Emroy Avenue
Elmhurst, Illinois 60126
708-941-7677

TECHNOLOGY AND STUDENTS AT-RISK OF SCHOOL FAILURE

Workshop on Education and Telecommunications

I propose to set the context briefly for this paper before turning to the direct utility of technology in meeting the needs of America's children and youth at-risk of school failure.

First, I refer the reader to facts in three areas: non-academic conditions of children and youth; economic and related demographic conditions; and academic achievement.

The non-academic conditions of children and youth include: the United States ranks twentieth in infant mortality today; more than one in five children are poor; nearly one in two black children are poor; twenty-five percent of sexually active teenagers contract a sexually transmitted disease; forty teenage females give birth to their third child daily; seven million youth, ages 10-17, are at serious risk of pregnancy, alcohol or drug abuse, or poor school performance.

The economic and related demographic conditions include: the fact that between 1947 and 1973 average income in the United States more than doubled. Between 1973 and 1986, it declined by almost $300; in 1985, of 20-24 year old males, less than 45% earned enough to support a family of three above the poverty line; of young black males, the percentage was less than 25%; only 2 of every 10 new workforce entrants in this decade will be native born white males; by 2000, there will be fewer than three

people working for every retiree; well over one-half of the new jobs being created require more than a high school education.

The academic facts include: in most international studies of math and science performance the United States is at or near the bottom; twelve percent of 17 year olds can arrange six ordinary fractions in order of their size; five percent of 17 year olds are able to write a good letter; forty-four percent of whites, 20% of Hispanics and 8% of blacks can correctly determine the change due from the purchase of a two item restaurant meal.

In recounting these facts, I have not sought to be exhaustive. I note them, however, to point toward several serious problems we are facing as a nation.

Our survival as an economic power in the international marketplace is at issue. We have fewer youth overall. A greater proportion of those we do have are from groups with whom the schools have historically failed. New jobs require higher skill levels than most of our students are exhibiting upon graduation.

In addition to our competitive disadvantage, but growing out of the same conditions, is the threat we are experiencing to our democratic institutions. The rich are getting richer; the poor, poorer. In addition, this sharper class division is also characterized by the wealthier being disproportionately white and English-speaking and the poor being disproportionately people of color whose first language is often not English.

These facts have resulted in two other phenomena which serve as a backdrop directly related to technology and at-risk students.

The first is that corporate America is becoming increasingly involved in the policy and politics of elementary and secondary education. The Committee on Economic Development was the first major corporate player. They were joined by the National Alliance of Business. Most recently, The Business Roundtable, which is composed of the nation's 201 largest corporations, has recognized their vital interest in American public education. Each corporation has "adopted" a state where each corporation will concentrate strong effort. Moreover, they have declared that the effort will be of at least ten years duration.

The second phenomenon and the last context setting reference point I wish to offer is the growing attention to setting and achieving certain high level academic achievement objectives. In January, the President set six ambitious goals and on February 25, the Governors adopted those far-reaching goals, they include, among others, being number one in the world by 2000 in math and science and having a graduation rate of 90% or more. In March, the Kentucky legislature enacted the most aggressive and far-reaching education legislation in memory. They identified six goals for their schools. The goals include not only math, science, social studies and English but, more significantly, they emphasize such things as thinking, problem solving, main ideas and integration of knowledge. Kentucky, however, went further. They are building a new set of assessment strategies that are performance based; they have adopted a system of rewards and sanctions that will impact on the schools' staffs in proportion to the schools' success in increasing the proportion of successful students in

a school or the failure to do so. The President, the Governors and now a state legislature have made decisions that reflect the future.

These five factors (non-academic conditions, economic and demographic facts, present academic performance, the policy/political clout of corporate America and the new emphasis on measurable outcomes reflecting high expectations) pose an unprecedented challenge for American elementary/secondary education. For the first time in our history, we must improve the level of student achievement significantly and simulanteously we must reach those higher levels of achievement with a much greater proportion of our students, including those who are black, limited English-speaking, the poor and the disabled.

Success or failure for all of us depends increasingly on our manipulation of information -- its receipt, its generation, our ability to relate diverse bits of information.

Information, of course, has become so central to our existence that it has come to be regarded as a product, as a commodity. AT&T, IBM and other giants of industry sell it, buy it and enable others to do likewise. A significant portion of our economy rests on the basis of such commodity trading. It is also central within our wide reaching and expanding data bases. Scientific and technical information is, of course, crucial to our national security. In the last generation information has come to be considered as necessary an element of production as land, labor, and capital.

Not only is it a product, but our ability to function effectively as citizens, consumers, even as political participants depends on our access to and understanding of information. Relationships to government are more complex whether in applying for

AFDC payments or filling out income tax forms. The need to evaluate and make more sophisticated choices is daily reality. Even one's ability to comprehend and act on individual rights and responsibilities is dependent on the explosion of information which has many roots in our technological world and which will be, at least in part, controlled by technology.

There are numerous ways technology, and I initially refer to the computer, can assist. There are generic contributions of computer technology which are not limited to any particular application. One might fairly summarize those generic characteristics within the framework of empowering the student. The computer motivates. It is non-judgmental. It will inform a student of success or failure without saying by work or deed that the student is good or bad. The computer individualizes learning, permitting mastery at one's own pace. In most instances, the learner has far more autonomy than in many other teacher directed settings. The computer gives prompt feedback. And good software makes the computer, at least potentially, remarkably imaginative. Such generic qualities allow the learner more often to be in charge. This is a quality missing in the lives of many students, especially those who are at-risk, due to environmental, physical, mental or language disabilities.

Having summarized the generic contribution of learning through technology, let me make two observations about learning facilitated by technology. We do not need (at least not much of) either computer literacy courses (translate keyboard skills) nor do we need to teach most students the skills of programming. For a time both were what too many meant when the call for technology in the classroom was sounded. In one sense,

I suppose it was not surprising. With the death of good software, there were not many alternatives. Happily, though software is still not of the necessary quality or quantity, fewer school people are putting whole schools of students through eight weeks of familiarity with the keyboard. It is increasingly recognized that the computer will be used by most as the telephone, television, and automobile is -- to accomplish other objectives without being able to either build or fix one.

Let's turn then to more specific contributions computers can more. First, it is clear that the basic skills of students can be enhanced. In a presentation to the U.S. Senate Committee on Labor and Human Resources in 1987, Robert Taggart, relying on work done by himself, Gordon Berlin, and Andrew Green, identified ten elements that research prescribes to teach basic skills effectively. They include:

- individualized, self-paced instruction
- competency based, open-entry/open-exit approaches
- use of multiple media and methods, including computers
- self-directed learning promoting learner efficacy
- frequent feedback and positive reinforcement
- accountability of teachers and learners
- efficient management to maximize time on task
- individual attention and one-on-one instruction
- supportive services and learning environments
- linkages to work, training, and other activities

Computers clearly must play a central role in such an effort. Taggart also notes that there are models presently working in a wide array of settings. One, in which he has particular confidence, is the Comprehensive Competencies Program. It is in place in hundreds of secondary and vocational schools, colleges, community based organizations, correctional facilities, job training programs, union halls, and private sector worksites in at least 35 states and Canada. He notes that the CCP learning centers have been described as the "high tech equivalents of traditional one-room schoolhouses." While the data on CCP is very persuasive I am not attempting to serve as a salesperson for CCP. Nevertheless, there is a great deal of data, which to my satisfaction, demonstrates we have the means and know-how to deal with the basic skills of most, if not every, at-risk teenager and adult in this nation with the computer as a major tool.

At a different level, but still in the basic skills arena, is IBM's "Writing to Read" program. An evaluation conducted by the Educational Testing Service concluded that it works. Children read better and they write better. It works with black and white, male and female, and poor students kids and rich students. It works with five and six year olds. In a number of instances, where poor children are involved, such as Greenville, North Carolina, the results are quite dramatic. Moreover, it begins to move us into the realm of thinking, not just rote learning, since it emphasizes writing. That is a theme to which I will return.

Finally, on the basic skills front, I direct your attention to the potential contribution made by authoring systems, such as the one developed in the continuing education program at The Johns Hopkins University.

My point in identifying the Comprehensive Competencies Programs, "Writing to Read", and the Hopkins authoring system is not to say those are the only approaches to using technology to enhance basic skills. They are not necessarily even the best. My point is to emphasize that in the basic skills context, whether one wants technology-based strategies for youngsters who are older or those in kindergarten, or if one wants to design one's own, they are available and they work.

At the same time we do not want to fall into the all too typical trap of thinking of technology only in the drill and practice of basic skills context. If our thinking were limited in that way it would be easy for drill and practice to become somewhat the same kind of limiting use of technology that teaching keyboard skills and programming was until recently.

We need to increasingly think of computers as tools to enable the mass of students, including at-risk students, to think critically or analytically, to solve problems, to draw inferences. We have long been successful in providing environments in which some students learn to think. But never in the history of human kind have we succeeded in having the skills of critical thought become normative for masses of students. Moreover, never before has it been necessary that we achieve that goal in order to maintain competitiveness in the international marketplace.

The computer can help. Word processing is a particularly good and readily available example. It assists in writing. Writing is the skill that schools have sought to teach on a mass basis which is most closely connected to thinking. Word processing can help writing be even more closely connected to thinking since it helps overcome some

of the mechanical impediments to writing. It can solve problems of penmanship; we find that students will write longer, more complex thoughts and sentences; they will revise and edit and, thus, think through better ways to say what they are thinking; even spelling and punctuation can be reduced as a barrier. I am not suggesting that we eliminate attention to the mechanics of good written expression. I am saying that we have the means to place those mechanics in the appropriate relationship to good thinking/good writing. Such a capacity is a particular advantage to many who are disabled or at-risk.

There are, of course, other ways technology can contribute to thinking. Simulation is one. Consider the number of permutations of a science experiment that are be possible with a computer but would be impossible in a science laboratory using consumable supplies. In a mathematics class, consider plotting a graph with hundreds of points -- possible with a computer -- rather than the handful available if it is necessary to calculate them manually. There are so many more examples. The challenge to which I will return later is to assure such liberating power to the poor student and the limited English proficient student as well as to the wealthier, suburban student.

Shifting to another perspective, technology for disabled students can make the difference between a life of dependency, of existence under the proverbial staircase or, alternatively, life in the mainstream, in competitive employment, with a family, a social existence and all the good things to which all human beings aspire.

The visual display of voice output can be used to assist the deaf student to monitor his or her speech output.

Major applications for technology with blind or vision impaired students are generating large print on a screen, printing braille and converting printed text to speech output.

Those who have difficulty speaking or writing are assisted by synthetic speech output and word processing with adaptive keyboards which, for example, help them take notes in school.

Young people with specific learning disabilities frequently have significant difficulty in writing or spelling or organizing their thoughts or time. Remembering, organizing, editing, spelling can all be assisted with word processing.

Students who are temporarily or permanently homebound can "keep up" through the magic of electronics. For example, in one local area network school in Maryland, the school decided not to use the laboratory concept with 30 machines in a single room. Instead, they placed six machines in each of five areas of the school -- mathematics, science, social studies, English, and far down at the end of one corridor, where few others traveled, in the special education section of the school. According to the testimony of the special education teacher, that electronic connection to what those disabled children think of as the real world has made a world of difference.

There are increasingly sources of support and information about the ways technology can help the disabled. There are two with which I am most familiar. One is the work of the National Cristina Foundation (NCF). The Chairman of NCF, a New York businessman, recognized that we are enroute to the corporate obsolescence of eight bit computers. At the same time, for many school applications, there are years of life

left. He donated 2,500 Apple PC's to the Maryland State Department of Education to demonstrate the potential uses for disabled youngsters. He believes within ten years corporate America will cease to use between 8-10 million eight bit machines. The NCF/Maryland effort has identified the uses to which they can be put. Just as methodically, NCF intends to make that information available across the nation and internationally. The work has also led NCF to recognize that many of the applications are useful with non-disabled at-risk students as they are with those who are disabled.

The NCF initiative is also related to the National Center for Technology in Human Disabilities in which the Johns Hopkins University and the Maryland State Department of Education are partners. It is an unusual collaboration of the private and public sectors in which the founders brought together more than a dozen projects worth over $3 million in the technology/disabled arena. The project involves youngsters birth to twenty-one, adults in vocational rehabilitation, youth and adults who are severely handicapped, and outreach beyond the nation's borders, particularly in Latin America, the People's Republic of China, and Ireland.

The segment of our population growing most is that of limited English proficient students. Between 1978 and 1982 the overall 9-14 year old student population declined by 6.2%. Their limited English proficient (LEP) counterparts increased by 10.3%. Another way of putting the numbers in perspective is to note that while Spanish is the language most often spoken by these youngsters, there are more than 100 language/language subsets spoken by public school students.

Computers can sometimes provide instruction when no satisfactory alternative is available.

Computer assisted instruction (CAI) can speed up certain learning; it provides greatest improvement for the lowest achieving students. Motivation is enhanced. Patience is a hallmark of the computer. Interactive devices provide students with a sense of control. Students can fail without embarrassment. All of those qualities can be helpful to the LEP student. There is evidence that CAI programs like "Writing to Read" which are designed generally to help young children with language, are effective not only with youngsters whose first language is English, but LEP student as well.

According to a March 1987 Congressional Office of Technology Assessment Report there are a number of developments affecting LEP students which are encouraging. For example, Seattle reports increased achievement with the Vietnamese, Cambodian, and Laotian bilingual software they developed. It is focused on U.S. history and reading comprehension. In San Diego, software in Spanish has proven useful. We already know that word processing packages and other devices used to enhance writing skills can be particularly useful. One can add to that the fact that low-cost chips are available which add dual language character generation, making Spanish and English writing possible.

Other potentially good contributions that are reported include digitized speech and audio devices. These can include native language speech output as part of an instructional program managed through a microcomputer. Also dual audio tracks in video discs can be helpful as they permit instruction of any subject in English and in the native language.

There are clearly other technologies, and technologies with more than one component that can help with different objectives at different times. Straight video-instructional television is one. Maryland uses it extensively and with a variety of audiences related to the topic of at-risk student. One national award winner was Constancia's Choice, directed to migrant youngsters. The message was a drop-out prevention one. Another of a different variety was a multiple segment series Maryland developed to train special education teachers. The series is now used in more than 30 states and was dubbed into Chinese for use in the People's Republic of China. A third is a parent education series starring Greg Morris. The target audience was the teenaged potential parent.

Another basic way to use technology that is growing in importance is distance learning. Utah, Texas, and Oklahoma have been big producers. The federal Star Channels program has provided great impetus to the movement. The benefits in wide-open, sparsely-settled spaces are obvious. Recently the Kentucky legislature passed legislation that contemplates reaching the poor and rural schools in that state for both in-service training for teachers and advanced and other low enrollment courses for students. In fact, this feature is only one of a $200 million six year program designed to reach all Kentucky students using all modes of technology. This effort will have a major impact on at-risk students.

But distance learning is not applicable only in sparsely populated settings. Using cable rather than satellite in densely populated central Maryland, students in diverse high schools have first rate courses not otherwise possible. The courses include very

advanced foreign language, science and math courses without the prohibitively high costs of both personnel and transportation. Again, the issue is whether poor school systems where poor students are concentrated have the advantage of such initiatives that enhance the learning opportunities of participating students.

Another technology that can be a powerful tool is the videodisc. Work that is being done at the Technology Learning Center at Vanderbilt is an excellent example. With a particular commitment to at-risk students, they are developing a series of videodiscs with computer connections, including a strong hypercard component, that early evidence indicates contributes significantly to thinking skills.

Finally in the list of instructionally related uses of technology in connection with at-risk students, I wish to mention one other. That is the use of technology in connection with staff development. One example is a very major and potentially productive project of the Agency for Instructional Technology that is presently in prospectus form. It is a multi-part video series focused instructional practices that were with elementary school students. A second stage, presently on the drawing broad, is a follow-up interactive videodisc series on the same subject matter. Staff development is becoming more and more important as teachers are being asked to reach higher levels of achievement with many more students of a more diverse background; they are being asked to accomplish new things with techniques they've never seen or used. Video, and especially interactive video, will likely prove to be a major tool in accomplishing the task.

I turn from the direct way in which schools can be assisted in meeting their instructional responsibilities to at-risk children and youth via technology to a different

powerful contribution of technology. To summarize the point I wish to make, technology can produce, manage and assist in the analysis of information about the students and their performance. This can help in planning school system, school, and student instructional programs. This capacity can also help generate resources from legislative bodies, who are sometime skeptical of needs, but insist on accountability, by helping to organize the data for which they look.

There are at least five ways one can think about contributions in this arena. First, student data bases, demographically organized, can produce powerful policy relevant information unattainable in any other practical way. Let me illustrate in a national context. For the first time in the nation's history, there is openness to developing state comparable data about student performance. In 1991, with math at the 8th grade level, using a National Assessment of Educational Progress test, comparable data will be collected from nearly 40 states. If a proper demographic analysis is done -- wealth, race, gender, parental education, as well as state/school systems resource analysis, we will have the ability to know what we are doing and where and how we should do things differently and more effectively. If one knows, based on comparable data, that another state, or better yet, a school system in another state, is producing better results with impoverished, Hispanic fifteen years olds, the potential for doing the same thing in another state or school system is substantial. Change will occur because one will decide to do the right thing, or the front pages of the newspaper will force a positive response. Either way, at-risk youngsters will be the winners.

As a final word on that notion, states need not wait for the nation to generate student data concerning performance-sensitive indicators analyzed within appropriate demographic cells. Most states will have the breadth of students to do the same thing internally. It is not easy; there will be political risks; it will generate controversy; decisions about which indicators and which population profile characteristics to use are complex. But the means of generation, collection and analysis are at hand. If one has the courage, and will commit the necessary resources, such knowledge will enrich a state's ability to serve its students, especially its at-risk students. I emphasize that as states become more focused on outcomes, they should not only develop the data base to know the outcomes but they need to collect the elements that will encourage analysis for performance improvements.

A second way to use technology to produce, use or manage information to help at-risk youth is in tracking youth on a national, state or school system basis. The most outstanding example I know of is the migrant tracking system through which an individual student's progress and needs can be followed. This can greatly facilitate instructional program planning for that student as he or she moves from, for example, Florida to Texas to Maryland. Similarly, with the tremendous movement of youngsters within our cities, moving in many instances several times per year, a sophisticated mechanism for tracking the students could be very helpful. As states (such as Kentucky has done recently) enact laws linking outcomes with rewards and sanctions and use the school's performance as the unit of measurement, knowing where students are will be of great help. A third, related alternative could involve young people who for any

number of reasons are in institutions, in foster homes or in some other or a series of other settings. Designed properly, one could program for and track such youngsters relatively easily.

A third use of technology in this general arena involves the identification of indicators of at-riskness -- poor grades, truancy, persistent tardiness, behavioral problems leading to various levels of disciplinary measures. These factors can be used singly and/or in concert to identify for special attention students who cross certain identified cumulative thresholds. Most educators care about kids and want them to succeed. At the same time, with the educator's range of responsibilities, it is difficult to always be aware of when a student is in trouble. Technology can help solve that problem relatively easily. In this context, one should ensure, however, that the ability to identify students needing help does not increase labelling or pull-out programs for at-risk youth.

A fourth use is to solve for administrators and teachers a host of administrative problems -- tracking student progress, keeping records, producing reports. To the extent those sorts of items can be made more routine through technology, time can be freed for more instructionally related purposes.

Finally, technology can help greatly in organizing and tracking-learning objectives for individual students, related instructional strategies, class lesson plans which account for individual attention, and evaluative data which can be cumulative and cumulatively analyzed. One effective manner in which Maryland effectively employed technology for disabled children related to the state requirement that IEPS affirmatively account for the 232 competencies which comprise Maryland's K-12 competency based program in

reading, writing, mathematics, world of work, citizenship, fine arts, and survival skills. It is one thing to establish standards and raise expectations. It is another to help students achieve them. These efforts related to IEP'S helped contribute to significant achievement gains by disabled youngsters on required-for-graduation competency tests.

There are several final issues requiring attention if technology is to fulfill its promise in fact, not just in theory.

I will mention four and treat two a bit more fully. First, good teacher training is crucial; second, we need to systematically disseminate information about the kinds of things discussed in this paper; third, evaluation and research about technology's impact on at-risk youth should be increased; fourth, school systems and states must be far more purposeful in their objectives and strategies to harness technology for young people in need.

There are two final critical factors. The first is the issue of access. The poor are disproportionately represented among at-risk youth. It is hardly profound to note that poor students are more concentrated in less wealthy school systems. Impoverished school systems do not have the necessary resources available to the rich. I use my experience in Maryland to illustrate, not because it is particularly bad (in a national context it does well), but because I know the statistics. The wealthiest system spends $2,500 more per child than the poorest. If one thinks of a typical classroom of 30 children that means one class has $75,000 more in resources than the other. It's not difficult to determine which has more of everything including access to technology.

The major solution is, of course, that the public, corporate America, educational leaders, and elected officials will recognize the need and demonstrate the resolve, intelligence and/or courage that is required to provide the resources.

Too often at-risk youngsters are treated in schools only to drill and practice opportunities while others are engaged in thinking skill activities. That's a mistake. It is also an issue of access. At other times computers are used only in courses with prerequisites like math and science. Too often the at-risk child will not have, for example, the algebra prerequisite. At-risk youth will not have as much non-class computer time. The at-risk student is less likely to have a computer at home than a wealthier counterpart and more likely to be a school where for reasons of resources, the school is closed in mid-afternoon. There are multiple ways schools must consider the access question. But it is a threshold question.

Finally, a word about software. It's better than it used to be, but it's not particularly good. The single biggest reason it has not gotten better faster is that few have discovered a way to make money producing educational software. The problem is compounded for sub-sets of youngsters like LEP students where the market for some items is even thinner.

If there is an answer to the several software issues, it lies in part in creating market power. We need a consortium sufficiently broad-based and cohesive so as to produce sufficient users to enable us to drive unit costs down. We must shape content and determine development priorities in line with school/student needs and have the power to also say we have some important special needs like those of LEP students.

The chalienges we face are extraordinary. The stakes are high. Commitment, imagination, will, courage, and resources in that order are necessary to succeed. We must succeed with at-risk students are well as all others. Technology can help us do that.